

TITLE 106 - NEBRASKA STATE ENERGY OFFICE

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CODE 006 - Elements of the Technical Analysis

006.01. Organization and Audience.

006.01A. The Technical Analyst shall prepare a separate report for each Building or complex. If several Buildings are included in a report for a complex, the information relating to the entire complex and the information relating to each individual Building shall be clearly identified.

006.01B. The target audience for the Technical Analysis is the School District Board and the report shall be written and arranged to communicate clearly to that audience. Required contents, other than calculations, shall be presented in narrative form.

006.02 Inspection. The Technical Analysis shall be based on one or more on-site inspections of the Building and premises.

006.03 Contents. The Technical Analysis shall include but not be limited to:

006.03A. identification of the Building or Complex, including:

006.03A1. Building name, location, and description of functions;

006.03B. an executive summary, including:

006.03B1. an evaluation and discussion of the current energy use and potential energy and dollar savings; and

006.03B2. a discussion of the recommended changes to Operations and Maintenance and the Measures which should receive the highest priority;

006.03C. historical information, including:

006.03C1. dates of construction of the original Building and any additions;

006.03C2. a discussion of previous energy conservation improvements and their effectiveness; and

006.03C3. the estimated remaining useful life of the Building;

006.03D. a description of the envelope and structure, including:

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006.03D1. size, in gross square feet of conditioned floor area;

006.03D2. plans for each floor, identifying rooms or areas by number, name or function and identifying the boundaries of additions; and

006.03D3. a description of the site, including solar access;

006.03E. a description of the construction and condition of all roof and ceiling elements, opaque wall elements, and windows and doors;

006.03F. a description of mechanical and electrical systems, including primary equipment, distribution systems, terminal devices, controls and settings, operating schedule, area of Building served, age and condition of all:

006.03F1. heating systems, cooling systems, ventilation or exhaust systems, domestic hot water systems, lighting systems, and other significant energy-using equipment;

006.03G. a discussion of Building use patterns including typical use and occupancy, significant use outside of normal school hours, cleaning schedules, typical daily, weekly and annual hours of use and seasonal variations in schedule;

006.03H fuel and electric consumption for each energy source for the previous twelve months, including:

006.03H1. monthly billed units and costs, if electricity is billed on demand, the monthly demand and cost, if any, meter or account number, name, mailing address and telephone number of supplier, average cost and deviations from normal fuel use during the previous twelve months;

006.03I. a description of each change to the Operation and Maintenance of the Building which would result in energy savings, including:

006.03I1. an estimate of the cost to implement each recommended change;

006.03I2. an estimate of the energy and cost savings which could reasonably be expected to result from implementing each recommended change, or a statement that such savings are negligible or not calculable; and

006.03I3. an estimate of the optimum energy use in the Building, in Btu per square foot of conditioned floor area, if all recommended changes are implemented;

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006.03J. a detailed description and analysis of each Measure which has a simple payback less than the useful life of the Measure, including:

006.03J1. description of the problem the Measure will address;

006.03J2. description of the Measure and how it will solve the problem;

006.03J3. identification of the area within or around the Building where the Measure will be installed and where benefits will occur;

006.03J4. estimated cost to construct or install the Measure, including costs for materials and equipment, labor, design, engineering and oversight, In-Kind Services and other costs;

006.03J5. an estimate of net annual energy savings, in millions of Btu per year, which could reasonably be expected to result from the construction or installation of the Measure, based on Code 011 Calculation of Energy Savings;

006.03J6. an estimate of annual Energy Cost Savings, based on the annual energy savings and the current cost of the energy source being saved and including, where appropriate, savings from reduced electrical demand or improved power factor;

006.03J7. the Simple Payback;

006.03J8. an estimate of any significant change in Operation and Maintenance cost which would result from implementation of the Measure, or a statement that such change will be negligible;

006.03J9. an estimate of any significant Interaction between this Measure and others included in the Technical Analysis, including changes in the annual energy and Energy Cost Savings, or a statement that no significant Interaction will occur; and

006.03J10. the expected useful life;

006.03K. where appropriate, an examination of the feasibility of using solar or other renewable energy source to replace part of the fuel or electricity currently used. Where a solar or other renewable energy source Measure is found to be feasible, the Measure shall be included with the other Measures described in Code 006.03J;

006.03L. a summary of the recommended Measures on Agency forms;

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006.03M. a signed certification bearing the Technical Analyst's State registration seal, stating that the information contained in the Technical Analysis is true and the calculations correct and accurate to the best of the analyst's knowledge; and

006.03N. a No-Interest Statement.